

1 **Q What about the Plaintiff's pickup truck?**

2 A I mean, there's -- clearly, there's evident
3 damage to the right rear axles. At least spring,
4 the suspension, if you will, definitely has damage
5 to it. I mean, the tire's still inflated, but if
6 it took that kind of load, I'm sure the -- you
7 know, there's -- I wouldn't want to reuse that
8 tire, but it did not get cut down, necessarily.

9 The flatbed is slightly out of alignment, but
10 appears to still be intact, but there is some
11 slight malalignment of that.

12 The driver's -- or, sorry, the passenger side
13 cab body, there's some -- you know, there's damage
14 to the door panels of that.

15 And then there's heavy frontal damage, hood,
16 bumper, reasonably the radiator, you know, frame
17 ends, things like that, given the magnitude of
18 that damage and all the, you know, underlying
19 engine room damage that would be associated with
20 all of that frontal crush.

21 **Q And what about damage to Mr. Miller's
22 tractor-trailer?**

23 A I mean, the visible is clearly the trailer
24 right side, rear part of the trailer. The ICC
25 bar, you know, that structure of it is clearly

1 damaged, pushed forward.

2 **Q What -- what references did you use in**
3 **creating your report?**

4 A You know, I mean, I obviously would be
5 considering, utilizing several studies that kind
6 of support fundamental reconstruction.

7 I did make reference to a few in my report,
8 specifically the "Traffic Accident Reconstruction"
9 textbooks published by Northwestern University;
10 author is Fricke in those.

11 The -- there's an SAE paper I make reference
12 to about Delta-V barrier equivalent velocity and
13 accelerations, and it related to vehicle crashes,
14 made reference to that, as well, specifically in
15 my report.

16 **Q And do you believe that -- like the SAE**
17 **Delta-V, are these authoritative materials?**

18 A I wouldn't call -- no, ma'am, I wouldn't call
19 them authoritative. I mean, they're
20 reconstruction studies, text, you know, going
21 through some fundamental physics. They provide
22 some good information. I certainly wouldn't call
23 them authoritative, though.

24 **Q Okay. And how did you choose -- choose that**
25 **to rely on?**

1 A I mean, the -- the SAE paper is
2 peer-reviewed, published. You know, it's a good
3 paper. It provides good definitions, terminology
4 of fundamental: What is Delta-V? What is barrier
5 equivalent velocity? How are they interrelated?
6 Basic analyses. It's a good study.

7 The Fricke -- the Fricke author, "Traffic
8 Accident Reconstruction" textbooks are -- you
9 know, they're the textbook utilized in the
10 Northwestern Traffic Institute when they teach
11 accident reconstruction.

12 They are good information. There's some good
13 information in there, fundamental analysis,
14 discussion, case examples. And so, again, they're
15 good -- you know, they're good text. You know,
16 they're not perfect. There's -- I take issue with
17 certain things within those texts.

18 Q **Okay. Let's talk about, what is your
19 specific opinion as to how this crash occurred?**

20 A So, I lay out in my report that there's
21 basically kind of four, you know, postulated, you
22 know, hypotheses, and I've kind of tried to rule
23 out what I could.

24 So, you know, as I said in my report, I don't
25 believe -- it's my opinion that it did not occur

1 in the way Mr. Marberger has testified; that is
2 that he was in the left lane, he got merged into,
3 effectively, pushed into a wall that doesn't
4 exist, and, you know, my report kind of walks
5 through that.

6 You know, there's -- clearly, there's two
7 primary events. There is a -- best I can tell,
8 there is the Chevrolet, your client's vehicle,
9 making frontal contact to the rear of the Miller
10 vehicle, the International trailer -- or the
11 trailer in tow by the International, rather --
12 that has certain parameters there.

13 And then there is a -- there's a separate
14 kind of corner sideswipe, if you will, of the
15 Peterbilt as it moves up along the side, around
16 the right side of the Chevrolet. So, those --
17 there's two very distinct different contact marks.

18 Based upon the reconstruction, the -- it is
19 more probable that the Chevrolet ran into the back
20 of the International first, and that that
21 collision -- and we can talk about the severity of
22 it, perhaps, but -- and then the secondary, lesser
23 degree sideswipe, corner swipe by the Peterbilt
24 relative to the right rear corner, right side of
25 the Chevrolet.

1 Q Okay. And what -- you said you believe it's
2 more probable that -- that the Chevrolet ran into
3 Miller's rear and then there was a corner swipe of
4 the Chevy. What did you base that on?

5 A A couple things. I mean, based on the
6 positioning of the vehicles, the severity of the
7 different collisions...

8 You know, I think one of the things, perhaps,
9 Mr. Chapman and I would agree on is that the --
10 the BEV of the Chevrolet to the back of the
11 International's trailer is in that 15- to
12 20-mile-an-hour range.

13 He came up with some, I think, around 16,
14 maybe some higher. My calculations in my packet
15 are going to be around 18 plus. But, again, a --
16 you know, that type of range BEV.

17 But that would be consistent with a notably
18 higher striking speed in order to create that BEV
19 because you're going to get a shared energy
20 distribution or what's called "work energy" or
21 "crush energy" associated with the damage to both
22 vehicles and the resulting Delta-V's to both
23 vehicles associated with that.

24 That -- the contact between the Peterbilt --
25 and, actually, if I just back up for a second.

1 You know, Mr. Chapman, for example, says that he
2 believes that, you know, it would take a 25 -- you
3 know, around 30 -- I think he said 25 to 35 was
4 his calculations -- around a 30 mile-an-hour
5 transfer of speed between -- to the Chevrolet by
6 the Peterbilt's propellant to the -- to the extent
7 by which it strikes the back of the leading
8 International.

9 The contact between those vehicles, the
10 damage between those two vehicles, do not support
11 a speed change that would accelerate the Chevrolet
12 up to a speed that would provide enough energy to
13 cause the frontal damage.

14 So, when you analyze the magnitude of the
15 interaction between those two vehicles, yes,
16 there's a few miles an hour of BEV, if you will,
17 of damage energy to them, but those two vehicles
18 never reach common velocity.

19 It is a swiping contact, so you're not
20 getting a full vehicle-to-vehicle engagement. It
21 is, again, coming around the right side of the
22 Chevrolet, down the left side of the Peterbilt.
23 But, again, that transfer of energy does not
24 explain the magnitude of energy available within
25 the Chevrolet to then deliver the magnitude of the

1 frontal collision that we see.

2 You know, the -- for what it's worth, as you
3 listen to the audio of the officer, he -- you
4 know, he's talking about the Chevrolet striking
5 the back of the International and then the
6 Peterbilt making a secondary -- the secondary
7 contact.

8 I understand Miller -- Mr. Miller's testimony
9 believes that that to be the same, and even in his
10 written statement, his statement seems to imply
11 that same sequence of events, as well.

12 So I think there's several variable -- or
13 pieces that support that, aside from just a pure
14 reconstruction of the physical evidence.

15 Q **Well, and you -- you referenced the officer's**
16 **dash cam or body cam, I apologize. You would**
17 **agree with me, then, that they go back and forth**
18 **about what happened. They're not clear.**

19 A He -- it appears that the officer is -- is
20 writing two reports. He's explaining why he's
21 going to write two reports because he -- he,
22 actually -- the way I listened to it, it sounds
23 like there was an earlier event where maybe the
24 Peterbilt kind of came up on and went around the
25 right side and then came back in behind. They

1 progress up and a secondary event occurred.

2 So he -- he's -- I don't think he's waffling.
3 He's describing it and his -- it seems to be
4 pretty clear in my -- when I listened to it, at
5 least, that there -- this -- this event, the
6 primary event here is, the Chevrolet's traveling
7 along, it, you know, slams into the back of the
8 International, and then the Peterbilt goes to the
9 shoulder a second time -- actually, is what he's
10 describing it, the way I'm hearing it, at least --
11 that goes kind of around and, again, clips these
12 vehicles in that on-off-the-shoulder movement
13 secondary to the Chevrolet striking the back of
14 the International.

15 Q **And you're -- are you referencing, there was**
16 **a discussion between two officers, a**
17 **back-and-forth discussion as to how this unfolded?**

18 A Yes, it seemed like the one officer who's
19 writing the accident reports is explaining to
20 another officer who hadn't seen the video saying
21 what he saw in the video, why he's writing the
22 report, is my take of listening to that audio.

23 Q **Okay. But you would agree that there are**
24 **different opinions given as to how the accident**
25 **unfolded within that conversation?**